

CLAIMS

What is claimed is:

1. A slack forming mechanism for an annular stator stack including a plurality of magnetic teeth on an inside wall, stator coils that wind around the plurality of magnetic teeth and having terminal parts, a connector provided with attachment pins to which the terminal parts of each of the stator coils are coupled, and two projecting parts that extend substantially in parallel from an outer periphery of the stator stack and that hold the connector arranged between them such that a clearance is formed between the connector and the stator stack, the slack forming mechanism comprising an attachment jig for coupling the stator stack to a coiling machine and including a protruding member extending through the clearance and having a top edge that projects above the clearance, wherein slack is formed in a stator coil by having the stator coil traverse the clearance and contact the protruding member to upwardly deflect the stator coil to form the slack.
2. The slack forming mechanism of claim 1 wherein the clearance is substantially rectangular in shape and the protruding member is substantially rectangular in shape.
3. A method of forming slack in stator coils extending from magnetic pole members of a stator stack and coupled to a coil connector comprising the steps of coupling the coil connector to the stator stack such that a clearance is provided between the coil connector and the stator stack, coupling the stator stack and connector to a jig attachment of a coiling machine, extending a slack forming member through the clearance and winding a stator coil between a magnetic pole member and the coil

connector such that slack is imparted in the stator coil under the action of the slack forming member.

4. The method according to claim 3 further comprising the step of winding the stator coil around a post extending from the coil connector.

5. The method according to claim 4 further comprising the step of applying a varnish to the wound stator coils.

6. A slack forming mechanism comprising a stator attachment jig for receiving and coupling a stator to a coil winding machine and a slack forming member extending from the jig and adapted to extend through an opening between a stator body and a coil wire connector, the slack forming member upwardly deflecting a winding coil to create slack in a coil.

7. The slack forming mechanism according to claim 6 wherein the slack forming member is integral with the attachment jig and extends through the opening formed between an outer periphery of a stator body and a coil wire connector.

8. A stator device adapted for being mounted to a jig attachment for a coil winding device having a slack forming member, comprising a stator body including a plurality of magnetic teeth disposed along an inner periphery of the stator body, at least two substantially parallel projecting members extending from an outer periphery of the stator body, and a connector block disposed between the projecting members for receiving terminal ends of stator coils extending from the plurality of magnetic teeth, wherein an opening is formed between the connector block and the outer periphery of the stator body such that when the stator body is mounted to a jig attachment, the slack forming member extends through the opening and imparts slack to coil wires traversing

the slack forming member and extending between the stator magnetic teeth and the connector block.

9. The stator device of claim 8 wherein the connector block includes at least two pins for receiving terminal ends of coil wires.

10. The stator device of claim 8 wherein the opening is substantially rectangular in shape.

11. In a coiling machine including an attachment jig and a slack forming member, the attachment jig adapted to mount a stator having a stator coil connector block coupled to the stator and forming a clearance between the stator and the connector block for receiving the slack forming member, a method of creating slack in a coil comprising the steps of mounting the stator to the attachment jig, causing the slack forming member to extend through the clearance to a height sufficient to impart slack in the traversing coil and removing the stator from the attachment jig wherein the slack is maintained in the coil.

12. The method according to claim 11 further comprising the step of applying a varnish to the stator coil.